

Work Order ID 138406

Tuesday, October 27, 2015 11:27:55 AM

138406

RUSH

Page 1

Item ID: D3319-1
 Revision ID:
 Item Name: Forward Wearplate
 Start Date: 10/26/2015 Start Qty: 6.00
 Required Date: 10/26/2015 Req'd Qty: 6.00
 Reference:

Accept ***N900040100*** Setup Start ***NS1***
 Stop ***NS2***

Cust Item ID:
 Customer:

12. mlf.

6
6

Approvals: Process Plan: MLS Date: OCT 29 2015 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3319	C								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.01							
FLOW CNC Waterjet	1-Cut as per Dwg D3319 Dwg Rev: <u>C</u> Prog Rev: <u>C</u> 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.00							
Quality Control									

(12) DC 15/11/20

(12) DC 15/11/20

(12) NOV 23 2015

DAS
33
9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	NC BRAKE	0.00							
140					DAS	12			NOV 24 2015
Brake NC	Memo	0.00			30				
Brake NC	1- Form using DT8326 & DT8261 as per Dwg D3319 Rev: <u>C</u>				9-89				
	2- Form flat on press using DT8776 block								
150	QC5- Inspect part completeness to step on W/O	0.00							
150						(12)			DAS
QC	Memo	0.00							38
Quality Control									9-89
									NOV 24 2015
160	Weld per dwg A/R Hardcoat steel Batch: 10036	0.00							
160	Large Fab					12			15-11-24
Large Fab	Memo	0.02							102
Large Fab	1- Layout weld location as per Dwg D3319 using jig D3319-1T3								
	2- Weld hard surface using DT8755 per QSI 004 and Dwg D3319 Rev: _____								
	Qty Part Number Description Batch								
	A/R N/A 228/7560 Hardcoat Rod								

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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC10- Inspect visual per QSI004- ground welds	0.00							⁴⁸ 38 9-89
170						(12)			NOV 25 2015
QC	Memo	0.00							
Quality Control									
180	QC5- Inspect part completeness to step on W/O	0.00							⁴⁸ 38 9-89
180						(12)			NOV 25 2015
QC	Memo	0.00							
Quality Control									
190	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
190	M 130746.					12	6	15-11-25.	⁴⁸ 34 9-89
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 1:20. OVEN TEMPERATURE: 320° FINISH TIME: 1:50.								

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC3- Inspect Part Finish	0.00							
200									DAS 38
QC	Memo	0.00							8-88
Quality Control									NOV 25 2015
210	Identify as per dwg & Stock Location: <u>57603</u>	0.00							
210	Packaging								
Packaging	Memo	0.00							
Packaging	Identify on inside surface using a permanent fine point marker with the following: TCCA-PDA, Dart Aerospace Ltd. P/N: D3319-1, B/N: <u>CL1511125</u> BXXXXX For Product Eligibility see PDA05-18 and Stock								
	Location: _____								
220	QC21- Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.01							
Quality Control									

MLJ 15-11-26

DQA: _____ Date: _____



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Work Order update only ☐

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Picklist Print

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Work Order ID: 138406

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Parent Item: D3319-1

D3319-1

Parent Item Name: Forward Wearplate

Start Date: 10/26/2015

Required Date: 10/26/2015

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP: B05.10.14Added step 9, dwg rev B KJ/EC
IPP Rev:C Now on Waterjet 06-10-26 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010S18GA		Purchased	No			100	sf	67.3542	0.628	3.966316			

M1010S18GA

1010/1025 SHEET .048

10/15/11/20

Location

Loc Qty

Loc Code

MAT019

67.354152

124428

3

m130454

0.3542

m132886

64

7.3

DQA: _____ Date: _____



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OTHER : _____					

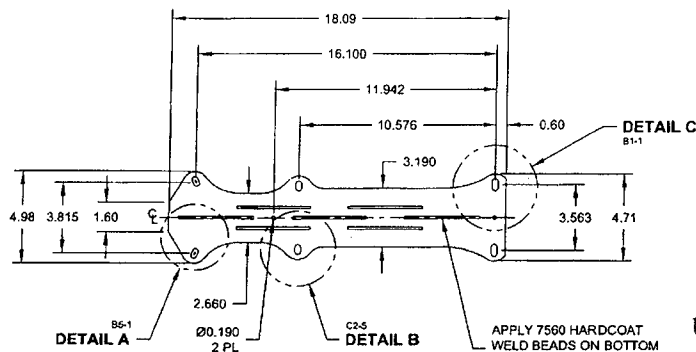
DART AEROSPACE LTD		Work Order: 138406
Description: Wearplate		Part Number: D3319-1
Inspection Dwg: D3319	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

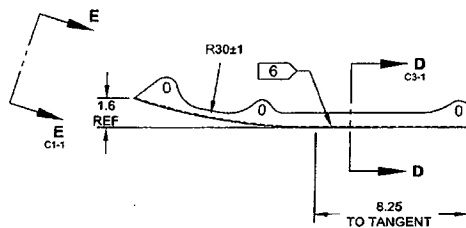
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.98	+/-0.030	4.982	/		V.D-02	
1.600	+/-0.010	1.60	/		Tap	
2.660	+/-0.010	2.667	/			
3.190	+/-0.010	3.197	/			
3.563	+/-0.010	3.557	/			
4.71	+/-0.030	4.710	/			
0.60	+/-0.030	0.601	/			
10.576	+/-0.010	10.578	/			
11.942	+/-0.010	11.942	/			
18.09	+/-0.030	18.09	/			
Ø0.316 x 0.546	+0.006/-0.001 x +/-0.010	Ø.317x.547	/			
Ø0.316 x 0.670	+0.006/-0.001 x +/-0.010	Ø.315x.671	/			
Ø0.190	+0.005/-0.001	Ø.192	/			
3.815	+/-0.010	3.819	/			
16.100	+/-0.010	16.100	/			

Measured by: <i>DC</i>	Audited by: <i>DAS</i> 38	Preliminary Approval:
Date: 15/11/20	Date: NOV 23 2015	Date:

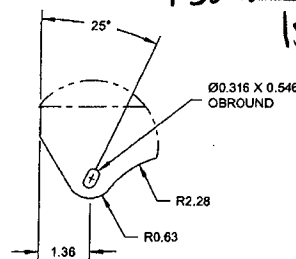
Rev	Date	Change	Revised by	Approved
A	07.05.31	New Issue	KJ/JLM	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	



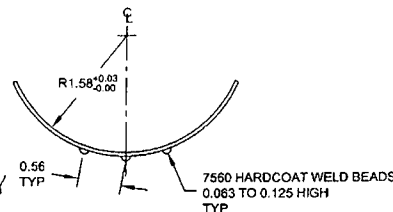
D3319-1F FLAT PATTERN



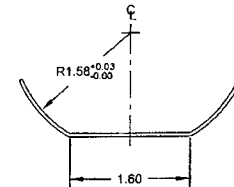
D3319-1 BENDING DETAIL
MAKE FROM D3319-1F



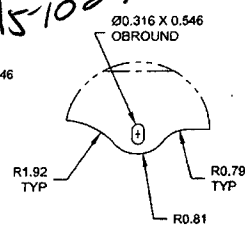
DETAIL A C8-1
SCALE 4X



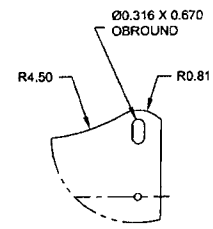
SECTION D-D B6-1
SCALE 4X



SECTION E-E B8-1
SCALE 4X



DETAIL B C8-1
SCALE 4X



DETAIL C C8-1
SCALE 4X

D3319-1 WEARPLATE

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANDEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.90 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

RELEASED
2012-03-16
PER ECN 12-546 4/12.03.16

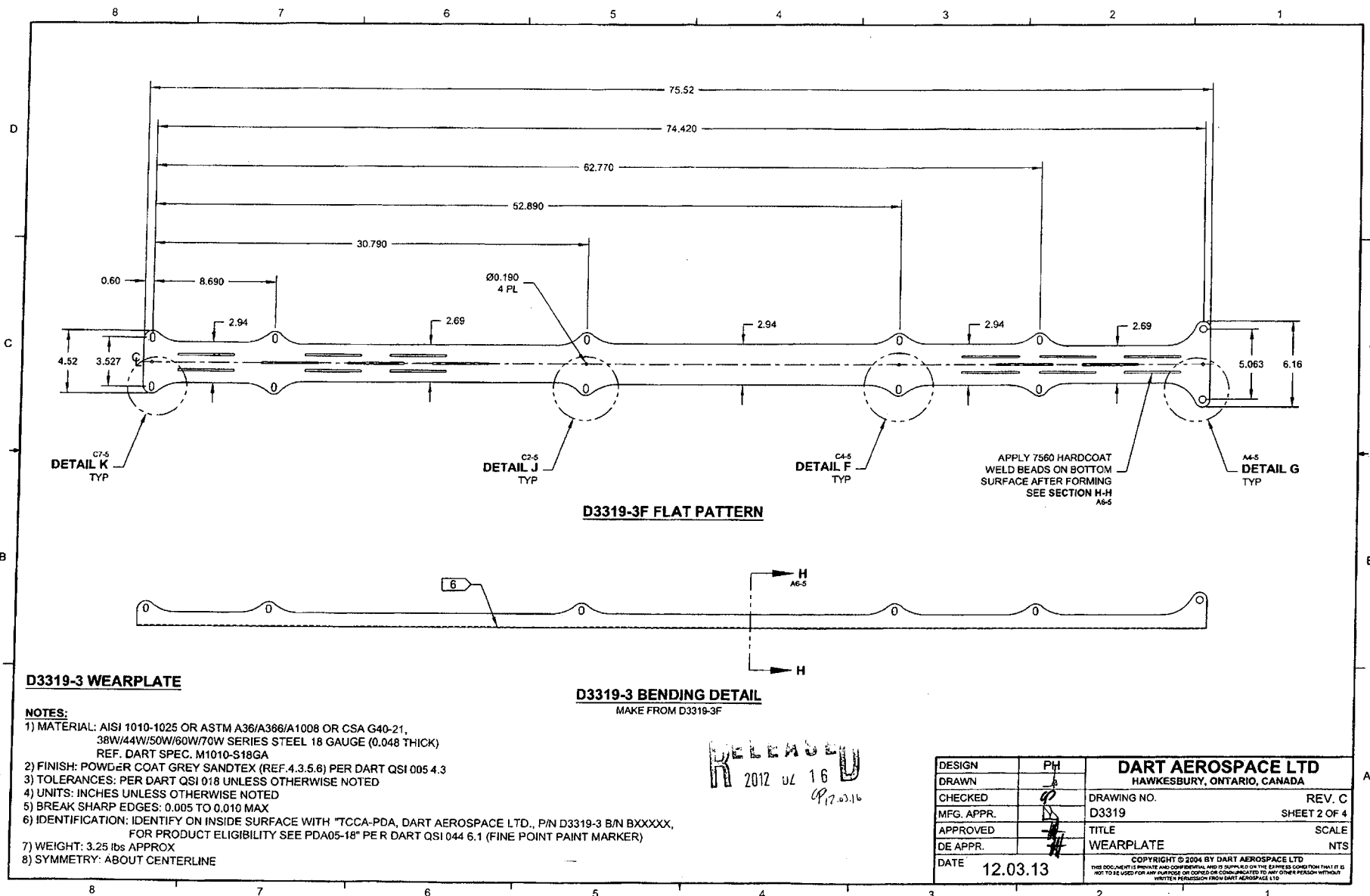
C	UPDATE TO CURRENT STANDARDS IAW QSI 043; CLOSED AFT. MOST HOLE ON -3/5-7 (REF DETAIL G); SEE NCR12-547.	MB	12.03.13
B	WIDEN HOLES, REDUCE WIDTH ON -3/5-7	PH	05.06.06
A	NEW ISSUE	PH	04.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.03.13		

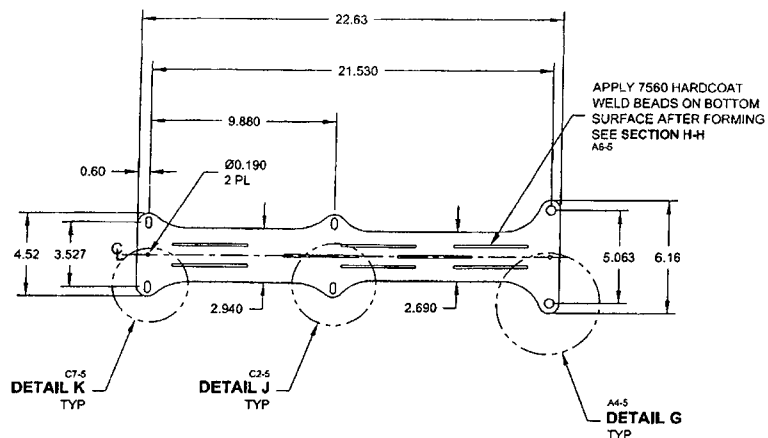
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3319
TITLE WEARPLATE
SCALE NTS

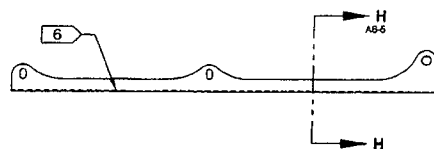
REV. C
SHEET 1 OF 4

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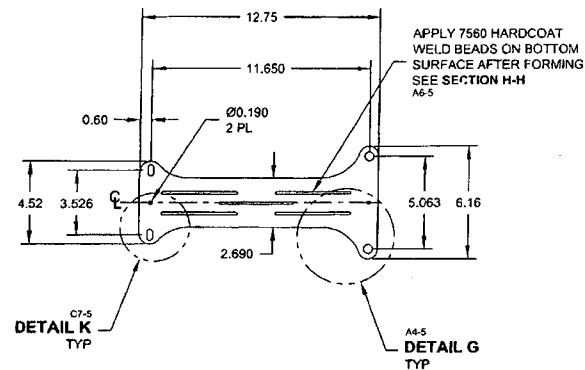




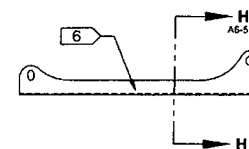
D3319-5F FLAT PATTERN



D3319-5 BENDING DETAIL
MAKE FROM D3319-5F



D3319-7F FLAT PATTERN



D3319-7 BENDING DETAIL
MAKE FROM D3319-7F

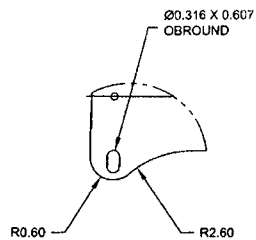
D3319-5/-7 WEARPLATE

NOTES:

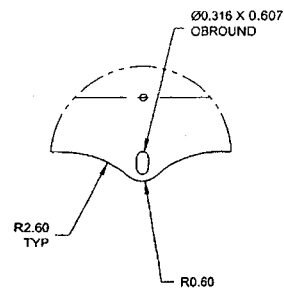
- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-X B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 046 6.1 (PERMANENT MARKER)
- 7) WEIGHT: D3319-5 = 1.05 lbs APPROX; D3319-7 = 0.60 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

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2012-02-16
4912.03.16

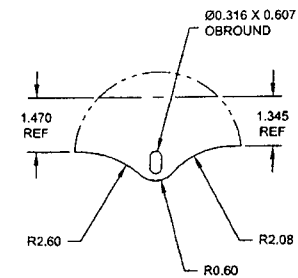
DESIGN	PH	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	92	DRAWING NO.	REV. C
MFG. APPR.	N	D3319	SHEET 3 OF 4
APPROVED	#	TITLE	SCALE
DE APPR.	#	WEARPLATE	NTS
DATE	12.03.13	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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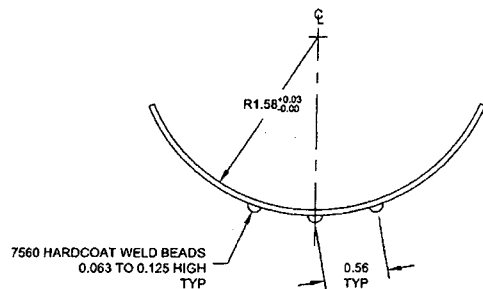
DETAIL K
SCALE 2X
B8-2
C4-3
C8-3



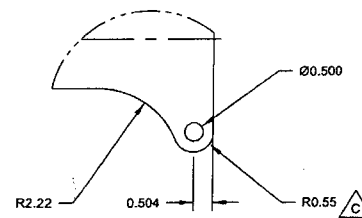
DETAIL F
SCALE 2X
B8-2



DETAIL J
SCALE 2X
B8-2
C7-3



SECTION H-H
SCALE 4X
B4-2
B3-3
B6-3



DETAIL G
SCALE 2X
B8-2
C2-3
C6-3

RELEASED
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CHECKED		DRAWING NO. D3319	REV. C
MFG. APPR.		TITLE	SHEET 4 OF 4
APPROVED		WEARPLATE	SCALE
DE APPR.			NTS
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